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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,973	02/09/2004	Jinhuang Wu	IR 3734 NP	8768

31684 7590 02/28/2005

ARKEMA INC.
PATENT DEPARTMENT - 26TH FLOOR
2000 MARKET STREET
PHILADELPHIA, PA 19103-3222

EXAMINER

COONEY, JOHN M

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 02/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/774,973

Applicant(s)

WU ET AL.

Examiner

John m Cooney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 1,2,9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0204.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election/Restrictions

Claims 1,2,9, and 10 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12-23-04.

Applicant's election without traverse of Group II (claims 3-8) in the reply filed on 12-23-04 is acknowledged.

Examiner contacted Steven Boyd on 2-1-05 to confirm that claims 3-8 (i.e. Group II.) were the elected claims. This clarifies any confusion from applicants' election remarks.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

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granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 3-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Wu et al. (2002 Expo Paper).

Wu et al. discloses blowing agent blends for improved fire performance which meet the combinations claimed (see page 144 1st column, 11-14 lines after word Abstract, as well as, the entire document). The make-ups of Wu et al.'s materials are so similar that suppression of smoke generation is a feature which is held to be inherent to Wu et al.'s disclosure.

Claims 3-8 are rejected under 35 U.S.C. 102(a) as being anticipated by Wu et al. (2003 Expo Paper).

Wu et al. discloses blowing agent blends for improved fire performance which meet the combinations claimed (see the entire document). The make-ups of Wu et al.'s materials and amounts employed in the combinations are so similar that suppression of smoke generation is a feature which is held to be inherent to Wu et al.'s disclosure.

Claims 3 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 97/41189 to E.I. DU PONT DE NEMOURS AND COMPANY (hereinafter DUPONT).

DUPONT discloses compositions comprising trans-1,2-dichloroethylene and

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cyclopentane. See abstract, page 1, lines 5-10, claims 1-4, etc. The reference expressly states that the compositions of the invention are suitable as foam blowing agents. The make-ups of DUPONT's materials and amounts employed in the combinations are so similar that suppression of smoke generation is a feature which is held to be inherent to Wu et al.'s disclosure.

Claims 3-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu et al.(6,793,845).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Wu et al. disclose compositions comprising trans-1,2-dichloroethylene and pentanes which meet the compositions as claimed (see claims, as well as, the entire document). The make-ups of Wu et al.'s materials and amounts employed in the combinations are so similar that suppression of smoke generation is a feature which is held to be inherent to Wu et al.'s disclosure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over DUPONT as applied to claims 3 and 7 above, and further in view of Bement et al.(6,288,135).

DUPONT differs from the claims in that it does not disclose pentanes other than cyclopentanes as suitable for the blowing agent compositions disclosed. However, the substitution of cyclopentane with n- or i-pentane or any combinations thereof would have been obvious from the disclosure of Bement who expressly teaches functional equivalency of any pentane or hexane (including c-, i-, or n-pentane) in blowing agent compositions (see column 1, lines 51-60, as well as, the entire document). It is prima facie obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. as applied to claims 3-5 above, and further in view of Bement et al.(6,288,135).

Wu et al. differs from the instant claims in that they do not specifically require blended pentanes or cyclopentane, alone, or in blends with other pentanes to be used in the blowing agent compositions they disclose. However, the substitution of cyclopentane with n- or i-pentane or any combinations thereof would have been obvious from the disclosure of Bement who expressly teaches functional equivalency of any pentane (including c-, i-, or n-pentane) in blowing agent compositions (see column 1, lines 51-60, as well as, the entire document). It is prima facie obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

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patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 3-8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 6,793,845, alone, or in view of Bement et al.

The claims of 6,793,845 disclose the utilization of blends as claimed in premixes. The instant claims do not exclude the additional premix materials of 6,793,845's claims, and such does not render a difference. Regardless, the claims render use of the identified blowing agent compositions for their blowing agent function and, accordingly, these blowing agent compositions would have been obvious materials to one having ordinary skill in the art given the teaching of the claims of 6,793,845. The claims of 6,793,845 are not specific as to weight amount values functionally or quantitatively. However, combinations of the critical materials for purposes of controlling their respective foaming effects would have been obvious to one having ordinary skill in the art with the expectation of success in the absence of a showing of new or unexpected results. The claims of 6,793,845 differ from the instant claims in that they do not specifically require blended pentanes or cyclopentane, alone, or in blends with other pentanes to be used in the blowing agent compositions they disclose. However, the substitution of cyclopentane with n- or i-pentane or any combinations thereof would have been obvious from the disclosure of Bement who expressly teaches functional equivalency of any pentane (including c-, i-, or n-pentane) in blowing agent

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compositions (see column 1, lines 51-60, as well as, the entire document). It is prima facie obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

Claims 3-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 10/253,242. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of 10/253,242 disclose the utilization of blended blowing agents as claimed. The claims of 10/253,242 are not specific as to weight amount values functionally or quantitatively. However, combinations of the critical materials for purposes of controlling their respective foaming effects would have been obvious to one having ordinary skill in the art with the expectation of success in the absence of a showing of new or unexpected results.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 3-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 10/802,950. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of 10/802,950 disclose the utilization of blended blowing agents as claimed. The claims of 10/802,950 are not specific as to weight amount values functionally or quantitatively. However, combinations of the critical materials for purposes of controlling their respective foaming effects would have been obvious to one having ordinary skill in the art with the expectation of success in the absence of a showing of new or unexpected results.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 3-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3 and 5 of copending Application No. 10/859,305 in view of Bement et al.

The claims 10/859,305 disclose the utilization of blends as claimed in premixes. The instant claims do not exclude the additional premix materials of 10/859,305's claims, and such does not render a difference. Regardless, the claims render use of the identified blowing agent compositions for their blowing agent function and, accordingly, these blowing agent compositions would have been obvious materials to one having ordinary skill in the art given the teaching of the claims of 10/859,305. The

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claims of 10/859,305 are not specific as to weight amount values functionally or quantitatively. However, combinations of the critical materials for purposes of controlling their respective foaming effects would have been obvious to one having ordinary skill in the art with the expectation of success in the absence of a showing of new or unexpected results. The claims of 10/859,305 differ from the instant claims in that they do not specifically require blended pentanes or cyclopentane, alone, or in blends with other pentanes to be used in the blowing agent compositions they disclose. However, the substitution of cyclopentane with n- or i-pentane or any combinations thereof would have been obvious from the disclosure of Bement who expressly teaches functional equivalency of any pentane (including c-, i-, or n-pentane) in blowing agent compositions (see column 1, lines 51-60, as well as, the entire document). It is prima facie obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

This is a provisional obviousness-type double patenting rejection.

Claims 3-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of copending Application No. 10/910,814 in view of Bement et al.

The claims 10/910,814 disclose the utilization of blends as claimed in premixes. The instant claims do not exclude the additional premix materials of 10/910,814's claims, and such does not render a difference. Regardless, the claims render use of the identified blowing agent compositions for their blowing agent function and, accordingly, these blowing agent compositions would have been obvious materials to one having ordinary skill in the art given the teaching of the claims of 10/910,814. The claims of 10/910,814 are not specific as to weight amount values functionally or quantitatively. However, combinations of the critical materials for purposes of controlling their respective foaming effects would have been obvious to one having ordinary skill in the art with the expectation of success in the absence of a showing of new or unexpected results. The claims of 10/910,814 differ from the instant claims in that they do not specifically require blended pentanes or cyclopentane, alone, or in blends with other pentanes to be used in the blowing agent compositions they disclose. However, the substitution of cyclopentane with n- or i-pentane or any combinations thereof would have been obvious from the disclosure of Bement who expressly teaches functional equivalency of any pentane (including c-, i-, or n-pentane) in blowing agent compositions (see column 1, lines 51-60, as well as, the entire document). It is prima facie obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in

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comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

This is a provisional obviousness-type double patenting rejection.

Claims 3-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of copending Application No. 10/336,368 in view of Bogdan et al.(6,086,788).

The claims 10/336,368 disclose the utilization of blends as claimed. The claims of 10/336,368 are not specific as to weight amount values functionally or quantitatively.

However, combinations of the critical materials for purposes of controlling their respective foaming effects would have been obvious to one having ordinary skill in the art with the expectation of success in the absence of a showing of new or unexpected results. The claims of 10/336,368 differ from the instant claims in that they do not specifically require pentanes or blends thereof, but, rather, hydrofluorocarbons.

However, the substitution of pentanes, or blends thereof, for hydrofluorocarbons would have been obvious from the disclosure of Bogdan et al. who expressly teaches functional equivalency of any pentanes and hydrofluorocarbons in blowing agent compositions (see column 3, lines 41-54, as well as, the entire document). It is prima facie obvious to substitute equivalents, motivated by the reasonable expectation that the

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respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

This is a provisional obviousness-type double patenting rejection.

Claims 3-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of copending Application No. 10/396,747 in view of Bogdan et al.(6,086,788).

The claims 10/396,747 disclose the utilization of blends as claimed. The claims of 10/396,747 are not specific as to weight amount values functionally or quantitatively. However, combinations of the critical materials for purposes of controlling their respective foaming effects would have been obvious to one having ordinary skill in the art with the expectation of success in the absence of a showing of new or unexpected results. The claims of 10/396,747 differ from the instant claims in that they do not specifically require pentanes or blends thereof, but, rather, hydrofluorocarbons.

However, the substitution of pentanes, or blends thereof, for hydrofluorocarbons would have been obvious from the disclosure of Bogdan et al. who expressly teaches functional equivalency of any pentanes and hydrofluorocarbons in blowing agent compositions (see column 3, lines 41-54, as well as, the entire document). It is prima facie obvious to substitute equivalents, motivated by the reasonable expectation that the

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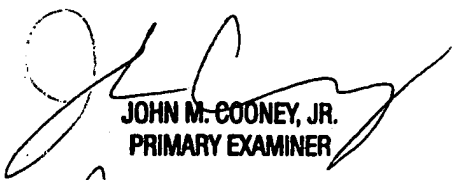
respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

This is a provisional obviousness-type double patenting rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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